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THE STORY OF

MASANIELLO, THE FISHERMAN, AND THE REVOLUTION OF NAPLES.

CHILDREN OF THE NEAPOLITAN LAZZARONI.

PART THE SECOND.

JULY 8th.—The morning of Monday had scarcely dawned, when licentious bodies of rioters appeared parading the streets, renewing the scenes of the former day with tenfold violence. In this, as in every other instance of a popular outbreak, it was found that the disposition to riot, like every other evil principle, is greatly strengthened by indulgence, and that the calamities of licentiousness accumulate with frightful rapidity. The Duke of Arcos resolved to negotiate, and he employed a Neapolitan nobleman, the Duke of Matalone, whom he held at the time as a prisoner in the castle, to act as his mediator with the insurgents.

No more puzzling question could be put to the Neapolitans, than to ask what was the substance of their demands. The expectations of a mob are always vague, and hence they insist upon impossibilities. The leaders of the insurrection demanded not only the abolition of all imposts, but the production of a charter, written, as they said, in letters of gold, and granted by the Emperor Charles the Fifth, to the citizens of Naples. No such document had ever existed, but nothing short of a miracle could convince the multitude of their delusion. Masaniello averred that it had been supernaturally described to him, and this declaration rendered further evidence superfluous.

The viceroy under these circumstances endeavoured to palm on the populace a forged document similar to that which they required. There had not been sufficient time to give such a fraud even a chance of success; it was at once detected, and popular indignation was directed against the Duke of Matalone. The fiercer insurgents seized on his person, loaded him with chains, and dragged him to prison.

Masaniello's malady had been aggravated by a sleepless night; he incited his followers to fresh acts of violence, and begun to display a fierce hatred of the nobility and gentry. With his sanction, the houses of all who were regarded as enemies to the people, were gutted and destroyed; his followers, the lowest and most licentious of the Lazzaroni, paraded the streets with boat-hooks to drag the gentlemen from their horses, and inspired such terror, that the appearance of one of them was sufficient to clear a crowded street. The very women joined in these excesses, with muskets on their shoulders, swords by their sides, and daggers in the folds of their dress; and even the children were made to bear their part in the national frenzy. A second night of revolution closed in, and the results of the

tyranny of a mob were traced in characters of blood and flame on the once lovely city of Naples.

July 9th.—The excesses of the former days were renewed with fresh violence. Masaniello led a body of his followers against the steeple and church of St. Lorenzo, which had been garrisoned by a company of Spanish soldiers, who were too few to offer any effective resistance. Henceforth, the church of St. Lorenzo became the chief focus of the insurrection, and its great bell was used to sound the tocsin, whenever Masaniello and his successors deemed it necessary to summon an assembly of the people. In the evening of the day, the viceroy made a new effort to open a negotiation with the insurgents, employing as his ambassador Cardinal Felomarino, Archbishop of Naples, who was rather a favourite with the populace. He persuaded the people and their leaders that he had full power to arrange all the points of difference, and he produced copies of the charters granted by Ferdinand the Catholic, and Charles the Fifth. Though these documents contained nothing like the stipulations ignorantly expected by the multitude, they were received with satisfaction, and the night was passed more peacefully than either of the preceding.

July 10th.—The expectations of peace to which the cardinal's embassy had given rise, were disappointed by a new series of events. Large parties of banditti, which had long infested the kingdom of Naples, flocked to the capital, and were gladly received by Masaniello. To one of these criminals, by name Perrone, he intrusted the charge of the prisoners. But the Duke of Matalone found little difficulty in persuading the bandit to become a traitor to the popular cause, and to join with another bandit, named Palombe, in a plot for the assassination of Masaniello. As a preliminary, the duke was permitted to make his escape, and he took good care to remove himself to a safe distance.

Masaniello summoned a general assembly, to deliberate on the proposals made by the cardinal; an immense multitude thronged into the square appointed for the meeting; but the appearance of five hundred banditti, armed to the teeth, well mounted, and acting in concert, excited some alarm. They rode forward to the place where Masaniello stood; some exclamations from the crowd excited his alarm, and he commanded the bandits to dismount. Instead of obeying the order, seven of them discharged their carbines at him, but though his shirt was burned by the gunpowder, not a ball struck him. The enraged mob immediately assailed the bandits; thirty of them fell at the very first discharge, and the rest sought shelter in a church, trusting that the Neapolitans, who are proverbial for superstition, would respect the sanctuary.

But in the terrible excitement of popular fury, religion ceases to curb violence, and superstition is of course still more inefficacious. The enraged multitudes forced the gates, the work of butchery went on in the sacred precincts, the floor was flooded with blood, wretches were slaughtered while they grasped the altar, and the images of the Virgin and the Saints were stained with the gore of the victims. A few were reserved for a worse fate; they were tortured to force a confession; cords were drawn round their thumbs, and tightened until blood spouted from the nails; the heads of others were subjected to similar compression until their eyes were starting from the sockets: they confessed the plot that had been laid for the murder of Masaniello, and the intention of their masters to fall upon the mob during the confusion that must necessarily result from the loss of the popular leader. All agreed that the Duke of Matalone and his brother, Don Joseph Caraffa, were the contrivers of the conspiracy; but some, probably in the vain hope of preserving their lives, added many other horrors, declaring that a plot had been laid for undermining the place of assembly, and blowing all the insurgents together into the air. These revelations scarcely delayed their fate, as each told all he was supposed to know, he was hewn down, beheaded, and mutilated in barbarous triumph.

The assembly still continued its meeting; Masaniello, guarded by the most ferocious of the Lazzaroni, bearing on pikes the gory heads of the slain banditti, harangued the multitude, exaggerating the dangers from which he and they had escaped, and calling for vengeance on the whole body of the nobles.

Horrid outcries rent the air as he concluded; a party instantly departed in search of the duke and his brother, while others, in anticipation of their capture, hastily prepared a wooden scaffold; the bleeding bodies of those who had been slain were tied to the tails of horses and dragged through the streets; the fishermen, the Lazzaroni, and hordes of degraded women, incensed by fury, mutilated the senseless carcasses, while children wallowed in the blood, and seemed to take a premature delight in slaughter. Matalone escaped his pursuers, but Caraffa was taken and dragged towards the square. His captors could not delay their eagerness for his blood, and, before he reached the scaffold, a butcher struck off his head with a blow of a cleaver. When intelligence of this event reached Masaniello, he ascended the scaffold, still in his sailor's dress, with a drawn sword in his hand, and exclaimed, "Bring here the head of the traitor." His orders were obeyed, and the furious demagogue insulted and spurned the corpse of the unfortunate nobleman, until his own followers could not conceal their feelings of disgust.

During this dreadful day the Neapolitan clergy kept the churches open, covered the altars with the ornaments used in the services for the dead, offered up prayers for peace, and repeated the service of their church called "supplications for the passing soul," usually recited for persons at the point of death. Even this spectacle failed to produce the intended effect; murderers with their weapons of slaughter, incendiaries waving their blazing torces, stopped at the gates of the churches as they passed, uncovered their heads, knelt for a few moments to go through the mummery of devotion, and then went on their way to continue the work of destruction.

July 11th.—The Duke of Arcos was far from breaking off the negotiations in consequence of the preceding horrors. Cardinal Felomarino again presented himself as a mediator; Masaniello, who was unable to write, dictated to his secretaries certain conditions for peace, principally insisting on the total abolition of taxes, and full indemnity for all who had engaged in the insurrection. When the articles were prepared, they were read to the people in the church of the Carmelites, and received with loud acclamation. Cardinal Felomarino then proposed that Masaniello should accompany him to the Spanish governor; the proposition was adopted, and the demagogue exchanged his sailor's dress for a superb robe of silver tissue. He then mounted a splendid charger, richly caprisoned, and, accompanied by a vast multitude, proceeded to the viceroy.

The Duke of Arcos, though imbued with a double portion of Spanish pride, received the imperious fisherman with the utmost respect, and treated him as if he had been the first of the grandees. The courtly ceremonies were tedious; they were pro-

tracted to such a length, that the crowd which waited outside for Masaniello's return, began to get alarmed, and to show symptoms of suspicion and uneasiness. On hearing this Masaniello stepped to the window, and by a single word hushed the miscreants to silence. He took the opportunity of showing to the viceroy the wonderful and perilous influence which he had established over the populace by manifesting their immediate and implicit obedience to his commands. He gave a signal with his hand, and instantly all the bells in the city began to toll; he waved his hand once more, and their knell instantly ceased. He lifted his arm, and the multitude raised deafening shouts; he placed his finger on his lips, and the assembled thousands became mute and motionless as statues. Such an exhibition produced the designed effect; the viceroy felt it necessary to recognise the title of so potent a demagogue; he not only saluted him as captain-general of the populace, but placed a gold chain round his neck with his own hands, and proclaimed him Duke of St. George.

July 12th.—The hopes of peace were baffled by the increasing malady of Masaniello; he was haunted by a morbid terror of death, dreading particularly the banditti, and the nobles by whom he believed them to be instigated. He could only sleep for a few minutes at a time, keeping his attendants in constant excitement, by springing from his troubled slumbers and exclaiming, "Up, up, there can be no rest for us until we are masters of Naples!" He received food only from the hands of one of his relations, and he frequently expressed a belief that he would eventually be deserted by the fickle populace, ignominiously slain, and that his body would be exposed to insults as gross as those which had been offered to the remains of Caraffa. Agitated by these apprehensions, he no longer received applications and petitions in the market-place, but posted himself at the window of his own cottage, in his fisherman's dress, with a loaded blunderbuss at hand. A body of the Lazzaroni surrounded the house as guards and executioners of his will; two secretaries prepared his answers, sentences, &c., and in all of these Masaniello continued to manifest an implacable hatred of the aristocracy.

July 13th.—The business of this day was the installation of Masaniello in the cathedral, and the solemn ratification of the articles of peace arranged between him and the viceroy. During the ceremony the marks of Masaniello's madness first became obvious to the spectators; he frequently interrupted the reading of the articles by captious and even absurd objections; at the conclusion of the ceremony he was with difficulty restrained from throwing off his robes, and assuming his old dress in the presence of the whole assembly. The multitude, however, still adhered to him, and their acclamations succeeded for a time in restoring his equanimity.

July 14th.—The insurrection had now lasted a week; a second Sunday had dawned, and the distractions of Naples seemed to have become worse than ever. Masaniello's insanity now began to be manifest to the multitude; he galloped through the streets half-naked, invited the cardinal and the Duke of Arcos to sup with him, jumped into the sea with his clothes on, continued to swim about for an hour, and drank at supper twelve flasks of strong wine. The intoxication which ensued, produced the only sound sleep he had enjoyed since his elevation.

July 15th.—Insurrectionary violence was now beginning to grow weary of its own excesses. The populace had nothing to do; for all who could be regarded as enemies of the public cause were removed. Masaniello's insane freaks, sometimes ludicrous and always mischievous, tended greatly to abate the popular enthusiasm in his favour; a new conspiracy was formed for his destruction, in which many who had been his most ardent supporters were included. His despotic power, which he frequently manifested by various acts of tyranny during the day, seemed still too formidable to be resisted. But towards evening he drew his sword, cut furiously at all around him, and became so outrageous that his friends were obliged to bind and secure him during the night.

July 16th.—Early in the day Masaniello escaped from the friends who detained him in custody, and rushed into the church of Del Carmine, during service before a crowded congregation. When the solemnity was concluded, Masaniello ascended the pulpit with a crucifix in his hand, harangued them in a desponding mood, complaining that he was betrayed and deserted. As he grew warm with the fervour of discourse, his insanity began to break out; at length his language and his gestures became so outrageous that the priests removed him by force from the pulpit. He then applied to the cardinal for protection, offering to resign all his authority to the viceroy, and the prelate persuaded him to retire into an adjoining cloister. The conspirators soon burst into his place of refuge, exclaiming, "Health to the king of Spain and death to Masaniello!" For a moment his former energies were rallied; he turned round to the assassins, and in a tone of firmness exclaimed, "Do my faithful subjects seek me? Here I am." The words had scarcely passed his lips when he received the fire of four muskets in his bosom; he had only time to exclaim, "Ungrateful traitors!" as he fell. He was a dead man ere his head touched the earth.

The crowded congregation, in the church of Del Carmine, learned the fate of the popular favourite without emotion. Those who had followed shouting in his train on the preceding day, patiently stood by while his head was cut off to be borne as a trophy to the viceroy. His body was dragged through the streets by a rabble of boys, among whom the nobility freely flung pieces of money, and was then cast into one of the city ditches.

July 17th.—The death of Masaniello does not conclude his "strange eventful history." On the morning after his murder a vast crowd of the Lazzaroni assembled, sought out his dishonoured remains, and carried them in melancholy procession to the cathedral; there his body was arrayed in royal robes, decorated with a crown and sceptre, and treated with all the respect due to a deceased sovereign. His funeral was celebrated with the utmost pomp; thousands of armed men followed the hearse, testifying their respect and sorrow; as the body sunk into the grave the assembled multitude burst into a passion of tears, prayers, and lamentation, and the memory of the unfortunate fisherman was long held in the highest veneration by the mob of Naples.

Thus, in the short space of ten days, Masaniello was raised from indigence and obscurity to the height of power; then suddenly slain as a wild beast and dragged through the city with ignominy, yet finally buried as a prince and almost worshipped as a saint.

The civil war soon broke out afresh, but the Neapolitans, after their first enthusiasm had cooled, proved unable to resist the might of the Spanish monarchy. Torn in sunder by internal tumults, insulted by their leaders, betrayed by their favourites, and plundered by banditti, they were glad to purchase peace upon any terms, and to submit to a government still more oppressive than that against which they had taken up arms.

HISTORY OF THE OLIVE TREE, AND THE MODE OF PREPARING THE OIL.

No. II

THE *cultivation* of the Olive has always been particularly attended to by the husbandmen of Western Asia and Southern Europe. It was formerly, and at the present day, propagated both by cuttings and by grafts; the latter method is referred to at some length in Romans xi. 17—24.

There was a law at Athens that the Olive-tree must be planted nine feet from another man's ground, because it is said to spread its roots further than other trees.

Virgil, describing the various ways which Nature has ordained for the propagation of trees, says, that Olives are increased by truncheons, that is, by cutting or sawing the trunk or thick branches into pieces of a foot or a foot and a half in length and planting them; whence a root, and soon after a tree, was formed. He goes on to express his astonishment at their great vitality:—

> E'en stumps of Olives, barred of leaves and *dead*,
> Revive, and oft redeem their withered head.

In another place, he says, that these trees,

Unlike vines, when once they have taken root and braved the winds, require neither pruning-hooks nor rakes; the land itself, after being ploughed, affords sufficient nourishment, and so productive are the plants that it would almost seem as if the fruit in full maturity were really turned up by the ploughshare.—*Georgics*, II. 420.

But little alteration has taken place in its culture. It is still propagated by grafts, or by suckers and truncheons, and it is still the custom to deposit stones in the trenches for encouraging moisture about the roots, as described by Virgil.

Its successful cultivation may be taken as no uncertain test of the industry and security of the country that produces it; its delicate constitution, if the term may be allowed, and the long period that must elapse before it will bear fruit, demands all the care and patience of the labourer. If once the original stock is destroyed, as frequently happens during a war, a whole generation must pass away before the new plants come to maturity, and unless property is protected and the labourers have some interest in the soil, it may not be reproduced for centuries. Under the paternal government of Greece it is daily adding to the riches of the country, while in Egypt it has gradually disappeared, nor have they been able to revive its cultivation. "Of many thousand young Olive-trees," says Prince Puckler Muscau, in a recent letter to this country, "which Ibrahim Pasha caused to be distributed gratis some years ago, hardly one remains, because they were carelessly planted and still more carelessly looked after."

The Olive, in the Western world, (says Gibbon,) followed the progress of peace, of which it was considered as the symbol. Two centuries after the foundation of Rome, both Italy and Africa were strangers to that useful plant; it was naturalized in those countries, and at length arrived into the heart of Spain and Gaul. The timid errors of the ancients, that it required a certain degree of heat, and could only flourish in the neighbourhood of the sea, were insensibly exploded by industry and experience.

The Olive grows readily in our own country by cuttings, or it may be grafted on the privet.

With protection during frost, (says Mr. Loudon,) it may be maintained against a wall in the latitude of London. Some trees so treated produced a crop in the garden of Camden House, Kensington, in 1719, and in Devonshire some trees have stood the Winter for many years, as standards, though without ripening their fruit. Large plants are frequently imported from Genoa along with orange and pomegranate trees.

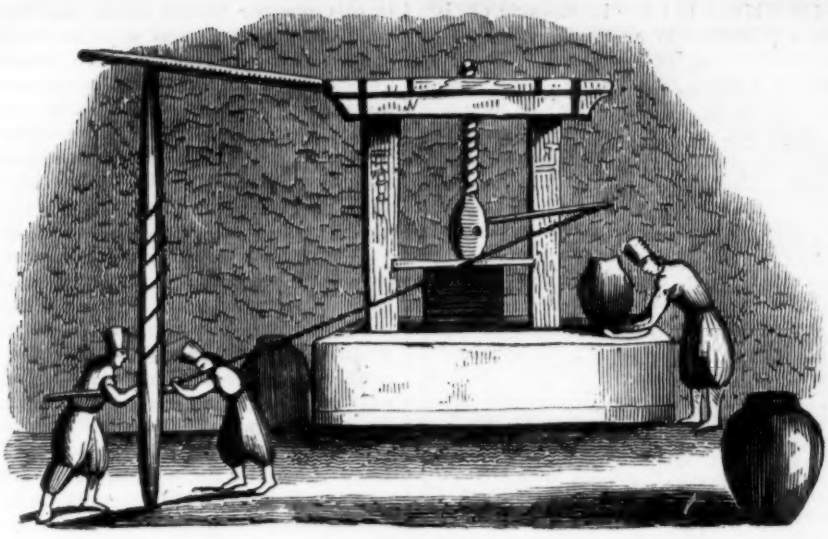
This subject affords an opportunity of saying a few words upon the mutual action and reaction of vegetable upon animal, and of animate upon inanimate matter. By tracing the food of animals through all its conditions, we find that no substance or being is isolated or self-dependent—that the same element is gradually developed from inert matter to vegetable life—from vegetable to animal life—and that its apparent death is merely its transition from one condition to another. It was observed by a native of Marseilles that the Olive, in its wild state, is propagated by kernels that have undergone the digestive process of animals, and more particularly of birds. It was further observed that, by this process, the fruit was deprived of its natural oil, and thus rendered permeable to the moisture of the soil, the excrement of the animal at the same time serving for manure, and probably the soda which that contains, by combining with the portion of the oil that has escaped digestion still further ensuring germination; the continuance of the species being thus produced by the very means that would seem to have destroyed it. The digestive process is so powerful, that, "some physiologists," says John Hunter, "will have it, that the stomach is a mill—others, that it is a fermenting vat—others again, that it is a stew-pan—but in my view of the matter, it is neither a mill, a fermenting vat, nor a stew-pan—but a stomach;" its action, however, is so powerful, that the handles of knives swallowed by jugglers have been dissolved, and the edges of the blades been acted upon by the gastric juice; yet the principle of life in the kernels of the Olive is still more powerful, resisting all chemical action except that which is favourable to germination *.

Olive oil was, perhaps, the first, certainly the *chief object of the early commerce of the Levant*. As vast quantities of it were made by the ancient Jews, it became an article of exportation. The demand for it in Egypt led the Jews to send it thither, and the prophet Hosea, xii. 1, upbraids his degenerate nation with the folly of their conduct, when, in the decline of their national glory, they carried the produce of their Olive-plantations into Egypt as a tribute to their ancient oppressors, or as a present to conciliate their favour, and obtain their assistance in the sanguinary wars which they were compelled to wage with the neighbouring states.

It was also carried into Egypt by the Greeks; Plutarch tells us that Plato defrayed the charges of his travels by selling oil in Egypt.

The relative value of this tree, as compared with other productions of the soil, may be seen by the oath which the Athenian youths were required to take at the age of eighteen. "My endeavours to extend the dominions of Athens shall never cease while there are wheat, barley, vineyards, and olive-trees

* One more instance of the reaction that animals exert upon vegetable life. The formation of the finer soils immediately upon the surface of lands is chiefly to be attributed to the digestive process of the common earth worm. Swallowing with its food a considerable quantity of earth below the ground, it deposits this upon the surface in a state admirably adapted for vegetation. This little gardener "earths up" the delicate roots of plants from which the mould has been washed away by rains, and is continually preparing a fresh soil to receive their seeds. It has been lately proved by actual observation, that the superficial stratum of a field is entirely changed in this manner every few months, and that pieces of pottery that have been thrown away as rubbish, are buried, in the course of a few years, to the depth of several inches. There is no room left to adduce other examples, but it requires no painful labour to follow nature ourselves through this or any of her paths: it is true that we have no opportunity in this country of observing whole reefs of rocks, secreted by one class of animals as bone is secreted in the human body, (see *Saturday Magazine*, Vol. III., p. 219,) and the surface of these rocks broken down into a rich and impalpable mud by another class, both lower in the scale of creation than the common earth worm. But there are changes going on before the eyes of all, so beautiful and yet so simple, that it seems strange that our attention is not more frequently arrested by them—and seeing them, that our minds can remain insensible to the perfect wisdom they evince.



THE OLIVE PRESS.

without its limits." At Athens there was a separate market called the "oil market," and a small trade was carried on in the fruit itself, for, according to a law in force, "all olives are exportable, but other fruits are not; so that the archon shall openly curse the persons that exported them, or else be fined 100 drachmas," (*3l. 4s. 7d.*)

The oil and unripe fruit in a pickled state are chiefly brought to England from Languedoc, Leghorn, and Naples; the best oil is from Leghorn, and the best pickles from Genoa and Marseilles. The Ionian islands are very rich in oil. The average product of the harvest of Zante is from 4400 to 4500 barrels, and that of Corfu in 1835 was reckoned at 80,000 or 100,000 barrels, and was valued at 2,000,000 dollars; but it must be observed that the trees bear well only every second year, and 1835 was the productive year.

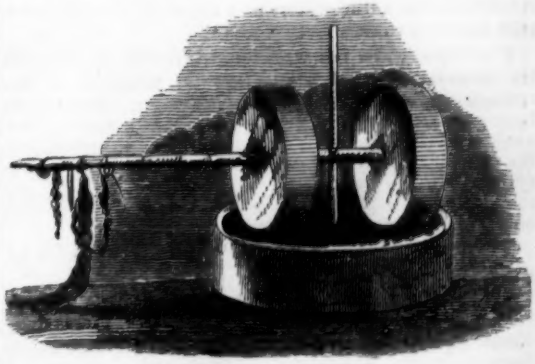
Strangers visiting the Ionian islands in Autumn are apt to think that currants are the chief produce, as at that time the whole of the country is engaged in the currant harvest, and the ports are crowded with vessels anxious to obtain the first fresh fruit. The trade in oil, however, is the most valuable, but as it is carried on constantly, and the oil is quietly embarked all the year round, it does not come so directly under the notice of strangers.

The process of expressing the oil is very interesting. Before the invention of mills it was obtained by pounding the fruit in a mortar; in Exodus xxvii. 20, we read of "pure olive-oil beaten for the light." It was also obtained by treading them with the feet in the same way as they crush grapes in many places at the present day, as at Xeres in Spain for our sherry wine; so in Micah vi. 15, "Thou shalt tread the olives;" but the feet appear to have been armed with metallic shoes; "Let him dip his foot in oil; thy shoes shall be iron and brass."—Deut. xxxiii. 24, 25.

To illustrate the preparation of oil, as it is carried on at the present day, we shall conclude with a description of some Olive-mills at Athens.

About half a mile from Athens, on the road to the port, and on the skirts of the great Olive-grove, are a row of low cottages built of mud, but not ill-looking, in which may be seen the rude and simple machinery which constitutes their olive-mills. They commence work about the beginning of November. Some of the fruit falls of itself before the season commences, and is either trodden under foot or washed away by the rains; but when there is a sufficient quantity ripe, the trees are well beaten, and the Olives are picked up from amongst the grass by women and children, and collected into small sacks. These are balanced on each side of an ass or mule, and carried at once to the proprietor of the mill, with whom the fruit is bartered for a certain quantity of oil. The proportion of fruit for oil depends upon the abundance of the harvest, and the period of the season; the fruit that is first gathered being dry, and unproductive compared with that collected later in the season, which swells even till it bursts, and lets the oil run away. At the beginning of the season of 1835, 28 occas* of fruit were exchanged for 5½ occas of oil, or nearly three gallons; but later in the season, only 24 occas, or even less, were given for the same quantity. The weighing of the little sacks as they come in is not the least curious part of the ceremony. The countryman not placing implicit confidence in the master of the machines, invariably brings his own scales with him, while the latter pays the same deference to the honesty of the other by weighing a second time with his scales, and it is not considered etiquette for the buyer to stand very near the sack for fear he should be tempted to give it a slight lift upwards with his foot. One sack weighed 53½ occas, and another after that 46½ occas.

The fruit is now shot out into a large square bin, in a corner of the building, like wheat in a granary, and close to this bin is the little mill for crushing



the Olives,—if one upright stone, attached to a perpendicular beam, deserves that name. These ma-

* An occa measures three pints and a half, and weighs about two pounds and a half.

chines are of two kinds, the one in common use has only one stone attached to a perpendicular beam which rotates with it. A horse is attached by traces to a horizontal pole which runs through the centre of the stone, and to a stick on the other side by a rein ingeniously tightened, so that the horse most unwillingly pulls itself along when once the machine is set in motion. The improved machine has two smaller stones further removed from the central beam, which does not rotate with them, but is made fast to the roof of the building. These are much more effective than the other as they describe larger circles, but require more moving power. The object of the mill is only to crush the Olives, no oil whatever being expressed. A sufficient quantity of fruit being thrown in from the bin at hand, the machine is set in motion, and a man goes before the horse, with a long pole armed with iron, to push the fruit in the path of the wheel. After a few rounds, about two gallons of boiling water is poured in to assist the action of the stone, and more added as required, till the whole mass acquires the consistence of a coarse paste. It is now put into a large jar and carried to the press, where one of the men kneads it with more hot water into a thinner paste, and as often as he fills the shallow dish before him, empties it upon a square cloth of the same coarse and thick material as the capotes or cloaks of the country, and of such strength as to bear the greatest power of the press without bursting. Another man immediately forms the paste with his hands into a square flat mass, folds up the cloth neatly, ties it with a string attached to each, and places it in the press before him, and so on to the number of sixteen or seventeen. The press is now turned down by means of a hand-lever, and when more power is required, a rope is carried from the lever to an upright rotary beam at some little distance, which two men turn round with great rapidity; this part is very amusing. The men make it rather a sport than work, and there is almost a snake-like elegance in their large half-clad and swarthy limbs, as they chase each other round the central beam with extraordinary velocity. The effects of their labour are soon seen. The oil and water run down the sides of the pile of cloths in crimson rivulets into the trough before the press, which, though rudely hewn out of one log of wood, is constructed upon the knowledge of the relative specific gravities of oil and water. It is divided into two parts by a partition that does not come to the top of the trough, but is about two inches below the level of the sides, so that when the oil and water run together into one part, it allows the oil, which is lighter than the water, and consequently floats on the surface, to flow over into the other division of the trough, while the water sinks to the bottom and is conveyed away by a pipe carried upwards on the outside, to the level at which they wish to maintain the water within the trough.

When the press is screwed down as far as possible, it is loosened; hot water is thrown upon the pile to wash off any oil that may remain upon the cloths, which are now removed and the paste within kneaded, but without unfolding the cloths. More boiling water is poured upon each, and they are again placed in the press, to be again removed to undergo for a third time the same operations, till no oil remains. In this manner twenty-eight occas of fruit produce eight, nine, or ten occas of oil. *The water* takes up most of the colouring matter of the fruit, and flows away from the cottages like rivulets of blood, dyeing the ground for some little distance of a deep and beautiful crimson. *The refuse of the fruit* comes from the press in square hardish masses, that are placed before the fire, where they soon become quite dry, and serve for fuel to heat the water that is so constantly required in the various processes. *The oil*, which is of a beautiful light-green colour, is removed from the trough into a large jar close to the press, and after depositing any water or dirt, is poured into skins, having the hair upon the inside. These are weighed before being carried away to the proprietor's house; a common sized one weighed sixty occas. At the proprietor's house it is poured into large earthenware jars, four or five feet in height, which are let into the ground, so that the short necks are alone seen above the surface. Here it remains for at least two months, till all impurities are deposited, but it still retains a greenish colour, never seen in the oil consumed in England, and which makes it less offensive to the prejudices of those unaccustomed to its use, as it appears more like, what it really is, an agreeable vegetable juice, rather than a gross animal oil.

Sometimes the supply of oil falls short, as was the case in November, 1835, when there was scarcely any old oil to be purchased in or near Athens. In November, 1834, the old oil sold for one drachma (rather more than $8\frac{1}{2}d.$) an occa ($3\frac{1}{2}$ pints), but at the same time in the following year, the same quantity could scarcely be bought for $2\frac{1}{2}$ drachmas (about $1s.\ 8\frac{3}{4}d.$) The presses were consequently crowded with purchasers, but the new oil is almost unfit for the purposes of burning, as it gives a most wretched light.

To keep a press and mill in constant work, to receive the fruit, send away the oil, and attend to the coppers for boiling the water, requires six men. These are paid in oil; it is, in fact, but one continued series of bartering, fruit for oil, and oil for labour, till the produce is carried into the city to be retailed, but the oil being of universal use makes it a most convenient medium of exchange.

The above description answers to the method by which oil is prepared in all parts of Greece and the Ionian Islands, and does not materially differ from the same operations as performed throughout Southern Europe.

The fresh ripe fruit eaten with bread is by no means unpleasant, and when preserved by being sprinkled with salt, is almost the only food allowed to the poorer Greeks during Lent. The oil too enters into all their dishes, nor are they satisfied with it in the pure inodorous and nearly insipid state that we obtain it in this country, but prefer it, especially the lower classes, after it has acquired a rank odour and rancid taste. I have known Greek servants, when offered fish that had been fried in fresh oil, to suit the fastidious palate of an Englishman, refuse to eat it until they had given it a flavour, by cooking it over again with their own rancid oil; but the decided preference that, under similar circumstances, a Chinese would show for *castor oil* is still more peculiar. It is, however, to be regretted, that a prejudice against pure olive oil exists at our own tables, for, when taken in small quantities, especially with vegetables, its use is as natural, and its effects as salutary, as those of melted butter are artificial and pernicious.

G. F. F.

THE SEASONS.

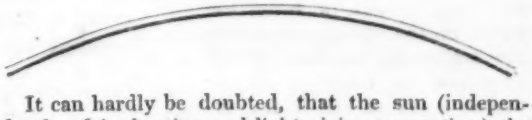
I. WINTER.

THE changes of the seasons, and the varied phenomena consequent thereon, is a subject well deserving the most patient investigation. We believe, however, that there is no department of human knowledge, interesting and instructive as it is, respecting which a greater degree of error prevails. Almost everything relating to the weather, to the alternations of heat and cold, to the origin of dew and rain, hail, snow, frost, and storms, is encumbered with popular errors. Many of these errors are of great antiquity, and may be traced to defective information respecting what, in the present day, are considered some of the most simple laws of nature. Other errors originated in the absurd rites and superstitions of idolatry; whilst a third class, and that probably the most numerous, is the offspring of the pretended science of astrology, which, to the credit of the present times, is rapidly falling into the contempt it always merited.

As most appropriate to the period of the year in which we are writing, we shall endeavour to explain some of the causes and the effects of the atmospherical changes commonly incident to WINTER, which by their constant recurrence are rendered familiar, but which on that very account are probably less attentively studied, and less perfectly understood than other phenomena which happen at longer and more uncertain intervals.

First of all, let us notice the lowness of temperature, or *the coldness of the weather*, which is the most remarkable characteristic of Winter.

There is no fact in philosophy more satisfactorily established, than that the atmosphere which surrounds the earth, is the medium through which the Creator and Preserver of the universe displays the ordinary operations of his providence towards that portion of his dominions, which is allotted to man for a temporary habitation. The air, in which, as in a seamless garment, our planet is enveloped, and which accompanies it in its diurnal and annual revolutions, is generally supposed to be about 45 miles in height. This elevation, great as it may appear when compared with that of our highest mountains, or the greatest altitude attained by the balloon, ($4\frac{1}{4}$ miles,) is not equal to one-eightieth part of the earth's semi-diameter. If we suppose the dark line in the annexed figure to indicate a part of the earth's surface, the faint line will denote the extreme limits of the atmosphere as already mentioned, the proportions being about one-twentieth of an inch on a globe of eight inches in diameter.



It can hardly be doubted, that the sun (independently of its heating and light-giving properties,) the moon, the planets, and comets also, exercise some kind of influence upon our globe, which, as we may reasonably imagine, bears a direct proportion to the relative sizes, distances, and movements of the respective bodies. But it is difficult, if not impossible, to determine what is the precise character of the mutual influences which we suppose to subsist among the members of that system to which the earth belongs. Nor ought this to be matter of surprise. We may rather wonder that so much *is* known, respecting bodies so remote. By the aids of modern science, the sizes, distances, and periodical revolutions of the planets, and their attendant satellites, have been ascertained with almost incredible accuracy,—an accuracy which has no parallel in the computations of time, and distance, and magnitude, which occur in the ordinary affairs of life.

The moon, as being our nearest neighbour in the regions of space, has in all ages been an object of peculiar interest and of unwearying observation; giving occasion, however, to opinions so wild and chimerical, that we find it difficult to believe in the sanity of those by whom they were promulgated. It is unquestionable that the moon exercises a specific influence over the atmosphere and the ocean; but it has also been asserted, and is very generally believed, that its influence is equally extraordinary upon the animal creation; and particularly upon the bodies and minds of mankind, those affected by mental derangement having thereby acquired the name of lunatics.

There are some very curious facts connected with this subject; respecting which, however, it must be confessed that our knowledge is exceedingly limited. The most we can do is carefully to note the effects; the cause is at present veiled in uncertainty. From the testimony of those who have paid attention to such matters, it would seem that the moon-beams possess a cold-producing agency. In France it has been noticed that so late in the Spring as April and May, the leaves and buds of plants, exposed to the full moon, on a clear night, have been frozen, whilst the temperature of the surrounding air has been several degrees above the freezing point. In warm climates, and especially on board ship, instances have frequently occurred, where persons who incautiously, or through ignorance, have slept in the open air with the face exposed to the moon's rays, have had their muscles distorted, their mouths drawn awry, and their sight seriously injured. In some cases these effects have remained for several months; and in others, the individuals thus exposed, have sustained a temporary loss of reason; resembling those labouring under the stupefying effects of narcotic poisons.

It ought to be known that fish, which are hung out of doors to dry, if placed in moon-light are thereby rendered unwholesome. It may not be so in every case; but on several occasions we have witnessed the most alarming symptoms result from eating fish which had been so exposed. One case we remember in which a whole family, consisting of six persons, was placed in imminent danger from the cause just mentioned.

Many other effects, equally remarkable as those referred to, and which are supposed to depend on the moon's influence, could be enumerated; but these hints must here suffice.

It has been stated that the periodical changes peculiar to the different climates of the earth, are effected through the agency of the atmosphere; but in this important work it performs only the part of an auxiliary; the sun, as the source of light and heat, being the primary cause of those changes.—And let it not be supposed that the relative intensity of the sun's rays, or, in other words, their heating property, as experienced at different periods of the year, is occasioned by the earth's nearer approach to, or greater distance from, the sun. Strange as it may appear, the earth, during the period of Winter in this country, is many millions of miles nearer the sun than it is in Summer. Other causes operate, therefore, in producing the variations of temperature on which the aspects of the seasons depend; and the principal of these is the position of the earth with reference to the direction of the sun's rays, and as a consequence of that position, the alternate increase and decrease of the period of day-light.

It cannot escape the notice of the most superficial observer, that, from the 21st of December until the 21st of June, the arc in the heavens described by the sun gradually enlarges; that luminary rising earlier and setting later in proportion as the space it occupies above the horizon increases. Arrived at its extreme northern boundary, the sun, from day to day, rises more towards the south, and on the 21st of December its return to the north recommences.

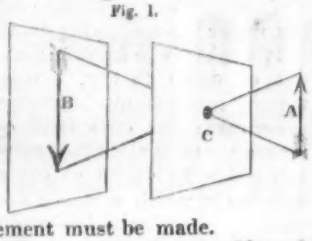
A fact we must not omit here to mention, will be required for the illustration of succeeding parts of our subject. We allude to the periods of the highest and lowest temperatures; which do not occur just when the sun has reached its respective southern and northern limits; but in both cases about four or five weeks afterwards. Thus, the warmest weather generally happens in July or August, and the coldest in January or February.

It will be understood that in speaking as we have done of the sun, we have been describing appearances only. The earth is the body actually in motion, whilst the sun is stationary; and the apparent advance and retirement of the sun through a certain portion of the heavens is occasioned by the earth's motion in the contrary direction.

THE CAMERA OBSCURA.

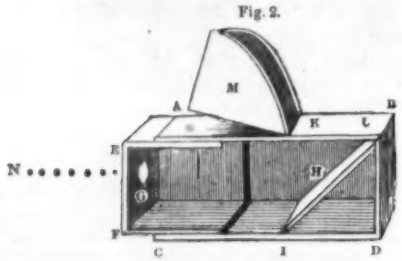
THE Camera Obscura, or *dark chamber*, is an optical instrument, for the purpose of making drawings of objects, which was invented rather earlier than the telescope. If a room be made entirely dark, and a convex lens of two or three feet focus be placed in a hole in the shutter, a beautiful image of all the objects before will be formed in the room behind it, and this image may be received on a sheet of white paper held behind it, but the image will necessarily be reversed. Suppose A, Fig. 1, to be the object, C the shutter, with the lens in the centre, and B the image received on a white screen. If it is required to trace the outline of this picture a different arrangement must be made.

Fig. 1.



The most usual form in which the Camera Obscura is made on a small scale is the following: A, B, C, D, is a

Fig. 2.



small oblong mahogany box, with the side removed to show the internal arrangement; a smaller box, E F, slides easily in and out at one end. In the end of this box, at G, a convex lens is placed, whose focus is rather greater than the length of the larger box. H is a looking-glass placed at an angle of forty-five degrees with respect to the bottom of the box: that is, if a perpendicular line were drawn from I to K, D, B, K, I, would form a square: on the top of the box at L, a square piece of ground glass is placed. The cover M, which works on a hinge, is intended to exclude as much light as possible from the surface of the ground-glass; and when the instrument is in use it is brought down halfway to B.

The rays of light from an object placed at N, pass through the lens G, and reaching the looking-glass H are reflected upwards on the ground-glass L, and an image of the object is seen on its upper surface. This image may be traced with a black-lead pencil, but it is almost impossible to transfer it from the glass. To obviate this inconvenience, Sir D. Brewster recommends the employment of a partially opaque varnish to the surface of a piece of smooth glass. This varnish can be marked with the finest lines of a pencil, and an impression of the sketch conveyed to paper, by slightly pressing it on the drawing with the hand: one of the simplest and the best of the varnishes he used was that of skimmed milk, perfectly freed of all remains of cream.

Another form is the following:—the frame-work of this Camera Obscura is made of thin mahogany,

Fig. 3.

and so contrived as to fold up; the inside of this, and of all these instruments, must be painted black. A is the mirror, B the lens, C a white surface on which the image is received; the draughtsman passes his head through an opening on one side, and his hand with the pencil through another, a green curtain surrounding him to exclude the light.

When a Camera Obscura is intended to allow several persons to see the picture at the same time, it is made on a large scale, and great care is taken in preparing the table on which the picture is to be received. The outer portion of the image transmitted by the lens when thrown upon a flat surface, is always distorted, especially when the table is large. To remedy this in some degree, the table is hollowed out like a saucer, the curve being decided by that of the lens itself: thus, A being the centre of the circle which forms the outline of the lens, B will form also the centre of the intended curve of the table; according to this rule, therefore, the curve C D would represent a section of a table adapted to receive the picture through a lens of the same curvature as B.

Fig. 4.

There is a very excellent table of this description in the Camera Obscura in the Observatory at Clifton, near Bristol.

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